
The contribution of SAS² to the management of small scale fisheries in Chile

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Key Words

Causal Dynamics, Social Analysis CLIP, Forum, International Development, Chile, fisheries, fishers, natural resource management, stakeholder analysis, co-management, decision-making, coastal areas

Context

- Chile has more than 4,200 kilometres of coastline. Of the 65,000 fishers that make a living on this coast, 15,000 are small scale fishers collecting high-value resources such as clams, crabs, and other shell fish.
- Since 1991, government agencies have been trying to engage small scale fishers in managing and administering the fisheries after decades of centralized and government control.
- Various models of co-management have been tried, and there is mounting evidence that these support the sustainability of small scale fisheries.
- There is a need to engage a range of stakeholder groups in an inquiry process that feeds various views into co-management decisions.



Questions

- What are the principal factors affecting the operation of small scale fisheries, and how do these impact the sustainability of the resource?
- What is the nature of the working relationship between fishers and other stakeholders in the fishery?
- What actions should be part of a management plan in the Coquimbo Region?

Participants

Small scale fishers, researchers, and fishery officials in three management areas (Zona Norte de Chile, Zona Común de Ancud, Región de Coquimbo)



Tools

- Causal Dynamics
- Social Analysis CLIP

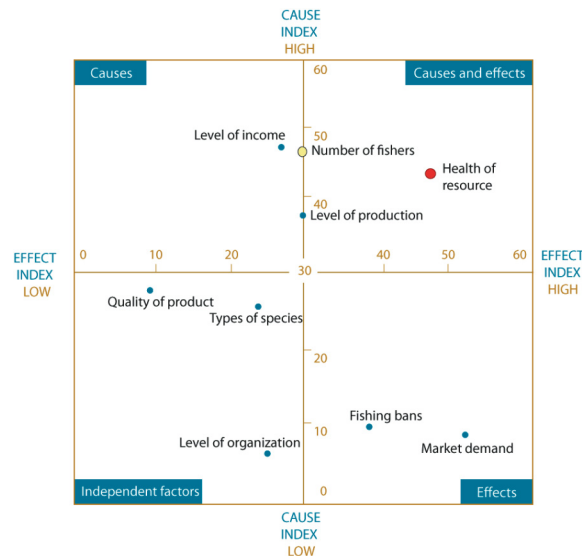
Examples of Results

Causal Dynamics, an analysis of the interaction of factors that affect the operation of small scale fisheries.

Figure 1: Double entry matrix for factors affecting small scale fisheries

Directly influences	⇒	A	B	C	D	E	F	G	H	I	Active sum
A	Number of fishers		3	3	0	3	1	0	0	0	10
B	Level of production	2		3	0	3	0	0	2	0	10
C	Level of income	3	3		0	3	0	0	0	0	9
D	Market demand	3	3	3		3	3	0	3	0	18
E	Health of resource	2	3	3	1		2	0	3	3	17
F	Type of species	3	1	3	0	2		0	0	0	9
G	Level of organization	3	0	2	0	2	0		1	0	8
H	Quality of product	1	1	2	1	0	0	0		0	5
I	Fishing bans	3	3	1	0	3	3	0	1		14
Passive sum		20	17	20	2	19	9	0	10	3	

Interpretation: Stakeholders should first focus on improving the health of the resource. This factor is both a cause and effect of the other problems (upper right quadrant in Figure 1). It depends on actions that fishers themselves control, such as respect for size minimums, rotation of fishing areas, and action against illegal fishing. At the same time, action is needed to limit the number of fishers.



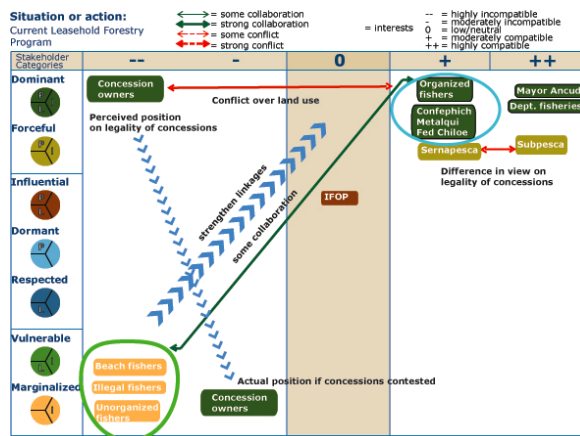
Social Analysis CLIP, an analysis of the stakeholder relationships in the current model of fisheries co-management.

Subordinate groups with few relations to other stakeholders:

- fishers without boats who fish from the shoreline,
- illegal fishers, and
- unorganized fishers.

These groups are excluded from the co-management process and are likely to lose out if the current co-management model is implemented. Efforts are needed to engage them directly, either by bringing them into the fishing organizations or protecting their interests in co-management agreements.

Owners of private aquiculture concessions (rights to certain fishing sites) also stand to lose from the current co-management model. Their power may not be as high as thought initially since there are differences and conflicts between government agencies over the legality of private concessions. In the meantime, actions can be taken to stop issuing new concessions.



Outcomes

- Diverse stakeholders identified areas of agreement.
- Plan developed to engage groups that are undermining co-management.
- Restored communication across longstanding divides between officials, scientists, and fishers.

Contribution of SAS²

- Multi-stakeholder and problem-solving dialogue.
- Visual presentations of analysis engages everyone and allows for quick adjustments along the way.
- Quantitative information captures the interest of scientists.